

ZERO-FORCE KEY ACTIVATION KEYBOARD
WITH DYNAMIC INDIVIDUAL KEY ILLUMINATION

ABSTRACT

Described is a zero-force key activation keyboard with individual key illumination. The keyboard includes a non-moving key for causing generation of an input signal when activated. The key has a depressed surface defining an approximately concave well with sides forming an open region sized to
5 receive a tip of a finger. A light emitter positioned on one side of the well emits a beam of light across the open region to an opposite side of the well. A light detector is positioned on the opposite side of the well to receive the light beam and to signal activation of the key when the light beam is obstructed from being received by the light detector. Each key is illuminated from within the well. When the key is activated, its illumination color can change. Upon release, the illumination color
10 returns immediately or gradually back to a previous color or unlighted state.